

Chem A

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Apparatus for simultaneous study of the viscosity of hydrocarbon systems and of their phase changes in conditions resembling those in an oil-bearing stratum. V. M. Fokuy, *Izv. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1980, 101-7. The combination viscometer and elec. condenser for use at pressures up to 200 atm. consists of a thick-walled cylinder, a perforated tube mounted therein out of contact with the walls, and a steel ball free to move between two electrodes at the ends of the tube. The tube and the cylinder constitute the plates of a condenser, the capacity of which is measured by means of an elec. circuit including an oscilloscope screen. For investigating a liquid system such as $\text{C}_{11}\text{H}_{24}$ and $n\text{-C}_{11}\text{H}_{24}$, about 4 g. each of the liquid and the gas are used. At 20° and 100°, this system shows a decrease in elec. permeability of the gas phase with rise in pressure from 120 to 190 atm., the two values becoming equal to each other at 200 atm. The condenser capacity changes will indicate the satn. pressure, the changes in phase equil. with temp. or pressure, and the formation of a crit. phase in mixts. of petroleum with $n\text{-C}_{11}\text{H}_{24}$ and $\text{C}_{11}\text{H}_{24}$. H. C. M.

1951

Inst. Petroleum, AS USSR

Б. К. Г. Г. У. М.

[illegible][illegible]

ROKOV, V. M.

3

Changing of phases of hydrocarbon systems occurring in petroleum. V. M. Rokov. *Trudy Inst. Nefti. Akad. Nauk S.S.S.R.* 1, No. 2, 162-71 (1950).—In systems contg. Bakinskii petroleum, pentane, and natural gas at 60°, dielec. const. of the liquid phase decreased and that of the gases increased with increasing pressure. In systems contg. Surakhanskii petroleum the dielec. const. was the same for the liquid and gaseous phase at pressures of 220, 251, and 290 atm. at the corresponding temp. of 60°, 40°, and 30°. At these pressures and temps. critical phases were formed in the systems for a certain compn. In systems contg. petroleum of the Surakhanskii-Podkirmakinskii strata, corresponding values of dielec. const. for gas and liquid phases at 60° and 800 atm. pressure were not observed. In these systems no critical phases were formed. Also in these systems the dielec. const. of the liquid phase approached that of the gas phase with increasing pressure. H. G. V.

FOKEYEV, V.M.

Comparison of calculated and experimentally found values for the
viscosity of gas-free oils. Trudy VNII no.8:335-345 '56.

(MLRA 9:12)

(Viscosity) (Petroleum engineering)

FOKEYEV, V.M.; NAMIOT, A. Yu.; VONDAREVA, M.M.; UL'YANINSKIY, B.V.

Paraffin deposits from formation oils. Trudy VNII no.8:369-
378 '56. (MLRA 9:12)

(Paraffins) (Petroleum engineering)

~~FOKEYEV, V. M.~~

USSR/Chemical Technology. Chemical Products and Their Application -- Treatment of natural gases and petroleum. Motor fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5496

Author: Mamuna, V. N., Gromova, A. A., Namiot, A. Yu., Fokeyev, V. M.

Institution: All-Union Petroleum and Gas Scientific Research Institute

Title: Mutual Solubility of Carbon Dioxide and Romashkinskaya Petroleum

Original

Publication: Tr. Vses. neftegaz. n.-i. in-ta, 1956, No 8, 392-399

Abstract: Investigation of mutual solubility of CO₂ and Romashkinskaya petroleum (molecular weight 253, d₄²⁰ 0.8736, content of paraffins 3.40%, of tars 15.75% by volume, starts to boil at 60°) under conditions corresponding to the average stratum conditions of the Romashkinskoye oil field. The CO₂ used was contained in cylinders under a pressure of 60 kg/cm² and included ≤2% of O₂ and N₂. Experiments carried out in a high pressure bomb, showed that at 40° and a pressure of 170 kg/cm² maximum solubility of CO₂ and petroleum amounts to 222 parts by volume

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USSR/Chemical Technology. Chemical Products and Their Application -- Treatment of natural gases and petroleum. Motor fuels. Lubricants, I-13

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5496

Abstract: per 1 part by volume, while with a higher ratio, two phases are formed: the upper being free CO_2 containing dissolved therein the light components of the petroleum (light phase), and a lower -- the heavy petroleum residue with CO_2 dissolved therein. The amount of hydrocarbons that pass into the light phase increases with increase in ratio of initial volumes of CO_2 and petroleum, and at the same time the density of hydrocarbons that pass into the light phase is increased; into the light phase pass the gasoline and kerosene components and a part of the solid paraffins; tarry substances were not found therein. CO_2 and kerosene are miscible in any proportions at 40° and a pressure of 170 kg/cm^2 .

Card 2/2

Solubility of petroleum and gases in water

References

1. J. H. Duerksen

2. J. H. Duerksen

3. J. H. Duerksen

4. J. H. Duerksen

5. J. H. Duerksen

6. J. H. Duerksen

7. J. H. Duerksen

8. J. H. Duerksen

9. J. H. Duerksen

10. J. H. Duerksen

POKEYEV, V.M.

Increasing oil recovery from highly-viscous oil layers. Trudy VNI
12:404-413 '58. (MIRA 12:3)

(Oil fields--Production methods)

SOV/81-59-5-16887

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 5, p 461 (USSR)

AUTHORS: Khaznaferov, A.I., Gromova, A.A., Fokeyev, V.M.

TITLE: The Interaction of Yarega Oil With Carbon Dioxide //

PERIODICAL: Tr. Vses. neftegaz. n.-i. in-t., 1958, Nr 15, pp 146 - 162

ABSTRACT: The properties of Yarega oil degasified and saturated with CO_2 and CH_4 were studied. The degasified oil is characterized by a viscosity of 3,490 centipoise at 20°C and a viscosity of 182 opoise at 60°C . Oil which is saturated with CH_4 at 150°C has a viscosity of 100 opoise at 40°C and 40 opoise at 60°C , and oil saturated with CO_2 at 150 atm has a viscosity of 68 opoise at 20°C and 10 opoise at 60°C . A conclusion is drawn that highly viscous Yagera oils can be extracted from collectors, which have no cracks, by pumping in CO_2 or mixtures of CO_2 with hydrocarbon gases.

M. Rudenko

Card 1/1

FOKEYEV, V.M.

Characteristics of formation waters, based on the solubility and
composition of gas. Trudy MGRI 33:117-125 '58. (MIRA 12:12)
(Water, Underground)

FOKEYEV, V.M.

Determining the saturation pressure of carbon dioxide in water.
Izv. vys. ucheb. zav.; geol. i razv. 2 no.6:87-92 Je '59 (MIRA 13:3)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
(Carbon dioxide)

FOKEYEV, V.M.

Method of determining the saturation pressure of formation
waters. Izv. vys. ucheb. zav.; geol. i razv. 3 no.6:70-74
Je'60. (MIRA 14:7)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Water, Underground)

SALATINYAN, I.Z.; TREBIN, G.F.; FOKEYEV, V.M.

Effect of the rate of petroleum flow on the deposition of paraffin
on pipe walls. Izv. vys. ucheb. zav.; nef't' i gaz 3 no.10:49-53
'60. (MIRA 14:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
imeni akademika I.M.Gubkina.

(Paraffins)

SALATINYAN, I.Z.; FOKEYEV, V.M.

Rate of paraffin deposition in pipes. Izv. vys. ucheb. zav.;
neft' i gaz 4 no.9:53-59 '61. (MIRA 14:12)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
imeni akademika I.M. Gubkina.

(Paraffins)

POKREYEV, V.M.

Formation waters and their importance for geological studies.
Izv.vys.ucheb.zav.; geol. i razv. 5 no.5:100-108 My '62. (MIRA 15:6)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Oil field brines)

FOKEYEV, V.M.; KAPYRIN, Yu.V.

Determining heat losses in a well shaft and the effect of
injecting large quantities of water on the temperature conditions
of the Romashkino field. Neft. khoz. 39 no.12:33-38 D '61.

(MIRA 14:12)

(Romashkino region—Oil fields—Production methods)

SALATINYAN, I.Z.; FOKEYEV, V.M.; TREBIN, G.F.

Effect of pressure decline and free gas separation on the rate
of wax precipitation in pipes. Nauch.-tekhn. sbor. po dob. nefti
no.15:91-94 '61. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Petroleum pipelines) (Paraffin wax)

SALATINYAN, I.Z.; FOKEYEV, V.M.

Controlling the deposition of solid matter in petroleum
production. Nauch.-tekhn. sbor. po dob. nefti no.16:88-93
'62. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Paraffin wax)

TESLYUK, Ye.V.; KAPYRIN, Yu.V.; FOKEYEV, V.M.

Design formulas for estimating the thermal effect on well
bottoms. Nauch.-tekhn. sbor. po dob. nefti no.16:93-101 '62.
(MIRA 15:9)
(Oil fields--Production methods)

ROSEN, V.M.

Physicochemical properties of the waters and systems containing
waters at great depths. Izv. vys. ucheb. zav.; geol. i razv. 7
no.5:74-82 Ny '64. (KIRA 18:3)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.

FOKEYEV, V.M.; MEL'NICHUK, I.P., aspirant

Some reasons for a change in the mechanical properties of
rocks in case of thermal action and subsequent cooling. Izv.
vys. ucheb. zav.; geol. i razv. 6 no.5:134-139 My '65.

(MIRA 18:10)

1. Moskovskiy geologorazvedochnyy institut imeni Ordzhonikidze.

ZELENCV, K.K.; ZOIOV, A.V.; MAKSAIEVA, T.S.; FOKETEV, V.M.

Characteristics of the neutralization of acid solutions using
sea water. Izv. vys. ucheb. zav.; geol. i razv. 8 no.9:120-
123 S '65. (MIRA 18:9).

1. Moskovskiy geolograzvedeshnyy Institut imeni S. Ordzhonikidze.

POKRYV, V.M.

Physicochemical properties of water and systems containing water
at great depths solubility of condensate phase in compressed
gases. Izv. vuz. khim. zav.; geol. i razv. 7 no. 6:62-88 1965.
(MIRA 18:11)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

ACCESSION NR: AP4038432

S/0294/64/002/002/0181/0187

AUTHORS: Gippius, Ye. F.; Kudryavtsev, Ye. M.; Pechenov, A. N.;
Sobolev, N. N.; Fokeyev, V. P.

TITLE: Determination of the red cyan-band system electronic transition dipole moment matrix element

SOURCE: Teplofizika vy*sokikh temperatur, v. 2, no. 2, 1964, 181-187

TOPIC TAGS: absorption spectrum, shock wave, dipole moment, absorption band, matrix element, carbon dioxide, nitrogen

ABSTRACT: The investigation is a continuation of research on the determination of the matrix element of the dipole moment of the electronic transition of the violet system of the CN bands (Teplofizika vy*sokikh temperatur v. 1, no. 1, 73, 1963; no. 2, 1963; no. 3, 1963). The absorption spectrum of the red system of the cyan band is obtained behind the front of the reflected shock wave in a mix-

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ACCESSION NR: AP4038432

ture of CO and N₂. The square of the matrix element of the dipole moment of the electronic transition is determined from the measured integral absorption coefficients in the wavelength region 6,330--6,550 Å and is found to be 0.19 ± 0.09 atomic units. The ratio of the squares of the matrix elements for the violet and for the red bands is obtained from the integral intensities of the bands (1,0) of the red system and (0, 1) of the violet system of cyan, in the spectrum of an arc with carbon electrodes burning in air. Its value is found to be 1.9 ± 0.6 . The value obtained for the square of the matrix element of the red dipole moment calculated from this ratio, and from the value obtained for the violet band earlier, agrees with the value obtained in the present work by measurements with the aid of a shock tube. The ratio does not agree with calculations by King and Swings (Astrophys. J. v. 101, 6, 1945) if allowance is made of the Franck-Condon factors. The reason for the discrepancy are discussed. "In conclusion the author is thankful to V. N. Kolesnikov for useful advice, A. T. Matachun and L. L. Sabsovich for solving the

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ACCESSION NR: AP4038432

gas dynamic problem on the M-20 computer, and G. I. Dronova for help in the reduction of the experimental data. Orig. art. has: 4 formulas, 2 tables, and 1 figure.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 29Dec63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: OP, ME

NR REF SOV: 005

OTHER: 011

Card 3/3

FOKEYEV, V. S.

USSR/Hydrology - Hydroelectric Plants Dec 51

"Whirl Discarder for Casting Off Floating Ice,"
V. S. Fokeyev, Engr

"Gidrotekh i Meliorat" Vol III, No 12, pp 38-41

Subject anti-ice construction designed by Fokeyev (Author's Certificate No 75062) was erected at a Caucasus hydroelec station during winter of 1951. Equipment chopped ice into small pieces which then were able to traverse turbines. Presence in reservoirs of a bottom aperture allowed use of whirl funnel which pushed ice through aperture.

199T79

FOKEYEV, V. S.

"Some Properties of a Stable Turbulent Funnel," Gidr. stroi., 20, No.5, 1951

FOKEYEV, V.S.

FOKEYEV, V.S.

AID P - 2586

Subject : USSR/Hydraulic Engineering

Card 1/1 Pub. 35 - 9/20

Author : Fokeyev, V. S., Kand. Tech. Sci.

Title : ~~Operational experience and design of vortex forming devices~~
Operational experience and design of vortex forming devices

Periodical : Gidr stroi, 4, 27-30, Ap 1955

Abstract : The article reports on difficulties with sludge and trash experienced at diversion power plants. The author strongly recommends the installation of flat gates forming a vortex in front of the sluice gate in various desilting basins. A detailed design of the vortex forming gates is presented.

Institution : None

Submitted : No date

FOKEYEV, V. S. Doc Tech Sci -- (diss) "Hydraulic vortexes, their study and practical application." Mos, 1957. 16 pp with diagrams, 22 cm. (Min of Agr, USSR. Mos Inst of Engineers of Water Resources im V. R. Vil'yams), 110 copies (KL, 24-57, 117)

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SOV/98-59-10-8/20

14(6)

AUTHORS: ~~Fokov, V.S.~~ Candidate of Technical Sciences, and Shilimov, A.I.,
Engineer

TITLE: An Experiment in the Exploitation of Vortex Eddies on the Burdz-
harskaya GES

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 10, pp 30-31 (USSR)

ABSTRACT: The article describes vortex funnels installed in the Burdzharskaya
GES in 1952, which enable drift ice to pass the turbines in winter
and sludge to be cleared away from the sluice-gates in the summer.
The delivery basin in this GES is 10 m broad, consisting of 2
chambers 6.4 m deep and 3.7 m broad, which are provided with
sluice-gates and a sludge-removing machine (capacity .8 m³); a
drift-ice deflector is also installed at the entry to the delivery
basin. Prior to the use of the vortex funnels the ice penetrated
as far as the delivery chambers, whence it had to be removed by
hand or mechanically. Attempts to allow the ice to pass the tur-
bine by means of increasing the speed proved a failure, but the
introduction of vortex funnels considerably improved the winter

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SOV/98-59-10-8/20

An Experiment in the Exploitation of Vortex Eddies on the Burdzharskaya GES

performance of the GES. The air temperature in the winter of 1956-57 dropped to $-15^{\circ} - 20^{\circ}\text{C}$, but an 80% ice-content in the stream-flow was passed without difficulty. The figure on page 31 shows a diagram of the installation, which involved a flat eddy-forming shield 7 m high and 1.7 m broad, which could be raised above the water-level by means of a 5-ton hoist. When the shield is placed in position, eddies are set up which immediately lower the percentage of ice passed to 40%. In the event of heavier ice-flows the boom device shown in the diagram can be lowered 2.5-3 m to effect a drop in front of the sluice-gate of 40-50 cm by means of a 1.5 ton crane, the traveling speed of which is 15 m/min, and the lifting speed 5 m/min; a powerful eddy is thus caused, which drives the ice through the gate into the turbine and crushes the ice against the grille. The 7 m long eddy-former consists of a wood and metal casing, and a 150 mm long metal tube is installed in front of the chamber in line with the current, its ends being fixed to concrete bulkheads, as a reinforcement to the eddy-forming shield. The method employed on the Burdzharskaya GES in the summer is

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An Experiment in the Exploitation of Vortex Eddies on the Burdzharskaya GES

for the sludge, consisting of lumps 40-50 cm thick, to be crushed by means of the eddy-former and then removed by the sludge-dredging machine; this crushing process takes 5-8 minutes. There is 1 diagram.

Card 3/3

FOKEYEV, V. S., Doc Tech Sci (diss)-- "Hydraulic eddies: their investigation and practical utilization". Moscow, 1960. 27 pp (Min Agric USSR, Moscow Inst of Water Economy Engineers im V. R. Vil'yams), 230 copies (KL, No 12, 1960, 126)

FOKEYEV, V.S., doktor tekhn.nauk

Use of whirl funnels for passing wood through hydraulic developments.
Izv. vys. ucheb. zav.; energ. 6 no.8:119-123 Ag '63.

(MIRA 16:9)

1. Leningradskiy ordena Lenina institut inzhenerov zheleznodorozhnogo
transporta imeni akademika V.N. Obratsova.

(Hydraulic power stations)

~~POKEYEVA~~
JENKINS, Clive; ~~POKEYEVA~~, G. [translator].

"Soviet air power is a reality." "Airplanes which have no equal."
Grazhd.av. 14 no.9:37-38 S '57. (MIRA 10:10)

1. Sekretar' po voprosam transporta Assotsiatsii administrativno-
tekhnicheskogo personala [England].
(Aeronautics, Commercial)

FOKHT, A., insh.; ZHEMALETDINOV, Kh., insh.

New machinery for rural construction. Sel'.stroï. 15
no.7:21-23 J1 '60. (MIRA 13:8)
(Building machinery)

FOXHT, A.S. (Moskva); CHERKASOV, I.I. (Moskva)

Soil compaction in stamping and compression tests and their effect on
soil mechanics data. Izv.AN SSSR Otd.tekh.nauk no.8:55-64 '56.
(Soil mechanics) (MLRA 9:9)

RUDIN, A.B.; FOKHT, A.S.

Some kinetic characteristics of the process of electron transfer in
photosynthesis. Biofizika 10 no.2:236-241 '65. (MIRA 18:7)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta
imeni Lomonosova i Moskovskiy fiziko-tehnicheskii institut.

S/020/62/147/001/005/022
B112/B102

AUTHOR: Fokht, A. S.

TITLE: Estimation of a polyharmonic function near the boundary of its domain and of its derivatives defined on a circle

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 1, 1962, 41-44

TEXT: Within the circle of the radius R, an l-harmonic function u is considered, which satisfies the conditions

$$\begin{aligned} \Delta^l u &= 0; & (1,1) \\ I &= \int_0^R \int_0^{2\pi} u^2 \rho d\rho d\vartheta < +\infty; & (1,2) \\ I_\rho^{(0)} &= I_\rho = \int_0^{2\pi} u^2 \rho d\vartheta; & (1,3) \end{aligned}$$

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Estimation of a polyharmonic...

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B112/B102

$$I_{\rho}^{(q)} = \int_0^{2\pi} u^{(q)^2} \rho d\vartheta, \quad (1,4)$$

where $q > 0$ is an integer and $u^{(q)}$ is an arbitrary mixed partial derivative of the order q . The result of the paper is that the inequality

$$I_{\rho}^{(q)} \leq C_{1,q} I / (R - \rho)^{2q+1} \quad (1,5)$$

is exact in the sense of the order of $R - \rho$ ($0 < \rho < R$). $C_{1,q}$ is independent of R . The proof is carried out by induction.

PRESENTED: May 19, 1962, by A. A. Dorodnitsyn, Academician

SUBMITTED: May 14, 1962

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16.2500

S/020/62/146/001/004/016
B112/B108

AUTHOR: Fokht, A. S.

TITLE: A boundary value estimate for the solution of an elliptic equation of arbitrary order with constant coefficients

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 1, 1962, 50 - 53

TEXT: The author investigates solutions $u(x,y)$ of the equation

$$D_{G_h}^{(l)}(u, v) = \iint_{G_h} \left[\sum_{i=0}^l a_i \frac{\partial^i u}{\partial x^{l-i} \partial y^i} \frac{\partial^i v}{\partial x^{l-i} \partial y^i} + \right. \\ \left. + \sum_{i, p=0, i \neq p}^l b_{ip} \left(\frac{\partial^i u}{\partial x^{l-i} \partial y^i} \frac{\partial^p v}{\partial x^{l-p} \partial y^p} + \frac{\partial^i u}{\partial x^{l-p} \partial y^p} \frac{\partial^p v}{\partial x^{l-i} \partial y^i} \right) \right] dx dy = 0 \quad (4,3),$$

where $v \in D_{G_h}^{(1)}(v) < +\infty$ fulfills the boundary conditions

$\frac{\partial^k v}{\partial y^k} \Big|_{\Gamma_h} = \rho \quad (k = 0, 1, \dots, l-1)$. The following estimate is derived:

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A boundary value estimate...

S/020/62/146/001/004/016
B112/B108

$$\|u\|_{W_{2,-1}^{(1)}(G)} \leq C_1 \|u\|_{W_{2,-(1-1)}^{(1-1)}(\Pi_{0,\delta})},$$

$$\text{where } \|u\|_{W_{2,-r}^{(r)}(G)} = \int_G \sum_{k=0}^r (\partial^r u / \partial x^{r-k} \partial y^k)^2 t^{2r} dx dy \quad (\Pi_{h,\delta} = G_h - G_\delta).$$

PRESENTED: March 31, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: March 22, 1962

Card 2/2

FOKHT, A. S.

Some evaluations near the boundary of the domain of a polyharmonic function and its derivatives defined in an n-dimensional region. Dokl. AN SSSR 147 no.4:801-804 D '62.
(MIRA 16:1)

1. Moskovskiy fiziko-tekhnicheskiy institut. Predstavleno akademikom A. I. Mal'tsevyu.

(Harmonic functions)

ACCESSION NR: AP4019964

S/0020/64/154/006/1287/1290

AUTHOR: Fokht, A. S.

TITLE: One boundary estimate for the solution of an elliptic type equation of any order with variable coefficients, including degeneration of the coefficients on the boundary of a region

SOURCE: AN SSSR. Doklady*, v. 154, no. 6, 1964, 1287-1290

TOPIC TAGS: partial derivative, elliptic equation, variable coefficient elliptic equation, coefficient degeneration, Greene function, harmonic function, Dirichlet integral, Euler equation

ABSTRACT: This paper is devoted to obtaining some boundary estimates in the case of variable coefficients, including those instances when they degenerate on the boundary of a region. The analyses were actually carried out in a two-dimensional case; they were transposed to an n -dimensional case by analogy. In the case of two measurements, the discussion concerns the solution for u of a partial differential equation which is an Euler equation for the functional (Dirichlet integral)

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ACCESSION NR: AP4019964

$$D_s^{(n)}(u) = \iint_{\Omega} \left[\sum_{l=0}^i a_l(x, y) \left(\frac{\partial^l u}{\partial x^{l-1} \partial y} \right)^2 + 2 \sum_{l=0}^i b_{lp}(x, y) \frac{\partial^l u}{\partial x^{l-1} \partial y} \frac{\partial^l u}{\partial x^{l-2} \partial y^2} \right] dx dy. \quad (1.1)$$

On the strength of the inequalities

$$|\lambda_m^{(n)}(t)| \frac{r_s(l+q+1+m)}{s(l+q+1+m)-s} < A_m \lambda_m(t); \quad (2.1)$$

$$|\lambda_m^{(n)}(t)| \frac{r_s(l+q+1+m-s)}{s(l+q+1+m)-s} < B_m (t-H)^{s(l+q+1+m-s)}; \quad (2.2)$$

$$(t-H)^{s(l+q+1+m)} < D_m \lambda_m(t). \quad (2.3)$$

$$\begin{aligned} & + \sum_{r=0}^q \left[\iint_{\Omega} \sum_{l=0}^i \left(\frac{\partial^l \Delta_{m, r-m} u}{\partial x^{l-1} \partial y} \right)^2 \frac{|\eta^{(n)}|^{r_r}}{A^{r_r}} dx dy \right]^{\frac{1}{2}} \times \\ & \times \max_{\mu, p, r, s} \left[\left(\iint_{\Omega} \left(\frac{\Delta_{r, q+1-r-\gamma} a_l}{A^{q+1-r}} \right)^2 |\eta^{(n)}|^{r_r} dx dy \right)^{\frac{1}{2}} \right. \\ & \left. \left(\iint_{\Omega} \left(\frac{\Delta_{r, q+1-r-\gamma} b_{lp}}{A^{q+1-r}} \right)^2 |\eta^{(n)}|^{r_r} dx dy \right)^{\frac{1}{2}} \right] \times \\ & \times \left[\iint_{\Omega} \sum_{l=0}^i \sum_{k=0}^{l-2} \left(\frac{\partial^{l-k} \Delta_{r, q+1-r-\gamma} u}{\partial x^{l-k-2} \partial y} \right)^2 \frac{1}{A^{s(q+1)}} |\eta^{(n)}|^s dx dy \right]^{\frac{1}{2}}. \quad (7.3) \end{aligned}$$

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$$\begin{aligned} m &= a(q+1), \quad \mu = \frac{2(l+q+1-s+a(q+1))}{2(l+(a+1)(q+1))-s}, \\ v &= \frac{2(l+q+1+a(q+1))}{2(l+(a+1)(q+1))-s}, \quad v_r = \frac{2(l+r+a(r+1))}{2(l+(a+1)(q+1))-s}, \\ v_r' &= \frac{2(q+1-r+a(q-r))}{2(l+(a+1)(q+1))-s}. \end{aligned} \quad (7.4)$$

the inequality

$$\begin{aligned} &|u|_{\substack{(l+q+1) \\ \Pi_{a,b} - \{l+q+1+a(q+1)\} (a)}} < \\ &< C(\delta) \left\{ |u|_{\substack{(l+q+1) \\ \Pi_{a,b} - \{l+q+1+a(q+1)\} (a,b)}} \sum_{s=1}^q |u|_{\substack{(l+q+1-s) \\ \Pi_{a,b} - \{l+q+1-s+a(q+1)\} (a,b)}} + \right. \\ &+ \sum_{s=1}^q |u|_{\substack{(l+q-s) \\ \Pi_{a,b} - \{l+q-s+a(q+1)\} (a,b)}} \sum_{r=0}^q |u|_{\substack{(l+r) \\ \Pi_{a,b} - \{l+r+a(r+1)\} (a,b)}} \times \\ &\times \max_{(u,p)} \left[|a_r|_{\substack{(q+1-r) \\ \Pi_{a,b} - \{q+1-r+a(q-r)\} (a,b)}} |b_{lp}|_{\substack{(q+1-r) \\ \Pi_{a,b} - \{q+1-r+a(q-r)\} (a,b)}} \right] \}. \end{aligned} \quad (7.5)$$

is obtained. In this case, $C(\delta)$ is a constant which depends on δ . In this particular instance it was that which was necessary to demonstrate this inequality coincides with the inequality

Card 3/4

ACCESSION NR: AP4019964

$$\|u\|_{\omega_{\lambda}^{(l,r)} - [1+r+\alpha(r+1)](g)} \leq C_r(s) \|u\|_{\omega_{\lambda}^{(l-1)} - (l-1)(\pi_{0,s})}(s)$$

Even if only one coefficient a_1, b_1 were not degenerate near the boundary, $a = 0$ and equation 8 takes the form

$$|u|_{\omega_{\lambda}^{(l,r)} - [1+r+\alpha(r+1)](g)} < C_r(b) |u|_{\omega_{\lambda}^{(l-1)} - (l-1)(\pi_{0,s})}$$

Orig. art. has: 22 equations

ASSOCIATION: Moskovskiy fiziko-tekhnicheskii institut (Moscow Physics-Engineering Institute)

SUBMITTED: 15Jan63

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: MM

NR REF SOV: 002

OTHER: 002

Card 4/4

FOKHT, A.S.

Some inequalities for solving elliptic equations and their
derivatives near the domain boundary in an L_2 metric.
Trudy Mat. inst. 77:168-191 '65. (MIRA 19:1)

L 41650-66 EWT(1) SCTB DD
ACC NR: AP6031120

SOURCE CODE: UR/0217/66/011/002/0299/0305

AUTHOR: Rubin, A. B.; Fokht, A. S.; Venediktov, P. S.

ORG: Faculty of Biology and Soil Science, Moscow State University im. M. V. Lomonosov (Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Investigation of the decay kinetics of the afterglow of photosynthesizing organisms

SOURCE: Biofizika, v. 11, no. 2, 1966, 299-305

TOPIC TAGS: photosynthesis, light biologic effect, plant chemistry, plant metabolism, chemiluminescence

ABSTRACT: It has been established that the delayed luminescence of photosynthesizing organisms which is observed after the cessation of light excitation is chemiluminescence, occurring during the recombination of intermediate products with pigment molecules in the course of the reverse reactions of photosynthesis. Still unclear in many respects, however, is the relationship between the kinetics of the afterglow and the rate of one photosynthesis reaction or another, particularly in the late stages of the decay of the chemiluminescence. The purpose of the present article is to study the decay kinetics of the protracted afterglow of the leaves of green plants and a suspension of green algae under various conditions of light excitation in order to determine more precisely

Card 1/2

0918 2343

L 41650-66

ACC NR: AP6031120

the relation between the reactions of photosynthesis and the chemiluminescence of photosynthesizing organisms. Green leaves of kidney- and horse beans and a suspension of *Scenedesmus* algae were used. Used to register the light of the chemiluminescence was an FEU-42 photo-multiplier with an end-window antimony-cesium photocathode, functioning under photon-counter operation conditions. The postluminescence decay curve of green leaves was found to consist of at least three components. The first component decays monotonically; the intensity of the second and third components passes the peak during the process of variation with time. The third component, which was discovered by the authors, is produced during excitation by light with wave-lengths greater than 700 millimicrons. The individual components vary in their sensitivity to the action of photosynthesis inhibitors, with the third component the most sensitive and the first component the least sensitive. The authors suggest a mathematical model to illustrate the peculiarities found in the kinetics of the chemiluminescence of photosynthesizing organisms. Orig. art. has: 4 figures and 7 formulas. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 11Jun65 / ORIG REF: 005 / OTH REF: 006

Card 2/2-11

FOKHT, L., inzhener.

The HK-215 tower crane. Stroitel' 2 no.11:23 II '56.
(Cranes, Derricks, etc)

(MIRA 10:1)

ULANOV, R.N., inshener; FOKHT, L.O., inshener.

Self-propelled carts for construction work. Nov.tekh.i pered.op.
v stroi. 18 no.6:14-16 Je '56. (MLRA 9:8)
(Industrial power trucks)

POLYAKOV, V.I., kandidat tekhnicheskikh nauk; FOKHT, L.G., inzhener.

New construction cranes for assembling precast reinforced concrete elements.
Bul.stroi.tekh.13 no.8:3-8 Ag '56. (MLBA 9:10)

1.Vsesoyuznyy Nauchno-issledovatel'skiy institut po organizatsii i mekhanizatsii stroitel'stva.
(Cranes, derricks, etc.)

POKHIT, L.O., inzh.; BOGATOV, A.N., inzh.

The BTK-5/8 tubular tower crane. Bul. tekhn. inform. 4 no.2:16-17
158. (MIRA 11:3)

(Cranes, derricks, etc.)

AUTHOR: Fokht, L.G., Engineer

SOV-118-58-8-16/24

TITLE: Loader "D-380" (Pogruzchik D-380)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 8, p 34 (USSR)

ABSTRACT: The Osipenkovskiy zavod dorozhnykh mashin (The Osipenko Plant of Road Machinery) constructed a self-propelling universal one-bucket rotary type loader which can unload the bucket from the front or the sides. Its purpose is to load loose, bulky pieces of freight on trucks, railway platforms etc. Equipped with various special devices, this loader could also be used for various earth constructions, erections in warehouses and quarries. The loader was tested and accepted for mass production. There is 1 photo.

1. Cargo--Handling 2. Machines--Performance

Card 1/1

KAREV, S.S., inzh.; FOKHT, L.G., inzh.

New mobile crane to be used in constructing buildings of few
stories. Mekh. stroi. 15 no.4:24-26 Ap '58. (MIRA 11:5)
(Cranes, derricks, etc.)

FOKHT, L.G.; BOGATOV, A.N.

New designs of erecting cranes. Biul.tekh.-ekon.inform. no.10:
38-41 ' 58. (MIRA 11:12)

(Cranes, derricks, etc.)

FOKHT, L.O., inzh.

Universal motor carts. Stroi. i dor.mashinostr. 4 no.6:19-20
Je '59. (MIRA 12:8)

(Building machinery)

FOKHT, L.G., insh.

All-purpose loader with a large lifting span for agricultural purposes. Mekh. stroi. 17 no.9:23-25 S '60.

(MIRA 13:9)

(Loading and unloading--Equipment and supplies)

FOKHT, L.G., inzh.

Low-power universal building machine. Stroi.i dor.mash. 6
no.7:19-20 J1 '61. (MIRA 14:7)
(Building machinery)

KAZARINOV, V.M.; FOKHT, L.G.; ABRAMOVICH, I.I., inzh., retsenzent;
GORYACHEVA, T.V., inzh., red.; OTDEL'NOV, P.V., inzh.,
red.izd-va; EL'KIND, V.D., tekhn. red.

[Universal construction equipment]Universal'nye stroitel'nye
mashiny. Moskva, Mashgiz, 1962. 157 p. (MIRA 15:11)
(Construction equipment)

KAZARINOV, V.M., kand. tekhn. nauk; IZHEVSKIY, K.K., inzh.; FOKHT,
L.G., inzh.; KOTSANDI, I.A., inzh.; ANUCHKINA, N.F., inzh.;
POLYAKOV, V.I., kand. tekhn. nauk; GLAZUNOV, V.N., kand.
tekhn. nauk; PAVLOVA, Ye.N., inzh.; POLOSIN, M.D., inzh.;
KROMOSHCH, I.L., inzh., nauchn. red.; SHERSTNEVA, N.V.,
tekhn. red.

[Manual on the mechanization of small-scale operations car-
ried out on building sites remote from major construction
points] Spravochnoe posobie po mekhanizatsii melkikh ras-
sredotochennykh stroitel'nykh rabot. Moskva, Stroiizdat,
1964. 415 p. (MIRA 17:3)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii,
mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.

PAPP, Andras, dr.; STARK, Janka, dr.; ILLES, Ilona, dr. ; FOKI, Maria, dr.

Contribution to the problem of pleurisy. Tuberkulózis 13 no.2;
50-53 F '60.

1. Az Allami Fodor Jozsef Tbc Gyogyszereseti Intezet (Igazgato-fuorvos: Sebok,
Lorand, dr.) es a Pestmegyei Tbc Gondozo Intezet (Igazgato-fuorvos:
Stark, Janka, dr.) kozlemenye.
(TUBERCULOSIS PULMONARY compl.)

PAPP, Andras, dr.; STARK, Janka, dr.; VAMOS, Geza, dr.; ILLES, Ilona, dr.;
FOKI, Maria, dr.

Late healing in the Pest Region as recorded in district dispensaries.
Tuberkulozis 13 no.11:331-332 N '60.

1. As Allami Fodor Jozsef Tbc Gyogyintezet (igazgato-foorvos: Sebok
Lorand dr.) es a Pestmegyei Gondoza Intezet (igazgato-foorvos: Stark
Janka dr.) kozlemenye.

(TUBERCULOSIS ther)

PAPP, Andras, dr.; VAMOS, Geza, dr.; ILLES, Ilona, dr.; FOKI, Maria, dr.

3 cases of diseases of mediastinal lymph nodes. Tuberkulozis 13 no.12:
358-361 D '60.

1. Az Allami Fodor Jozsef Tbc Gyogyintezet (igazgato-foorvos: Sebok
Lorand dr.) I Tudo Belosztalyanak kozlemenye.

(TUBERCULOSIS LYMPH NODE case reports)

POKICHEV, B.A., kandidat meditsinskikh nauk (Moskva)

Posterolateral approach to the anterior tibial artery in injuries
near the knee. Khirurgiia no.4:60-63 Ap '54. (MLRA 7:6)
(ARTERIES, POPLITEAL, surgery,
*postero-lateral approach)

CHIRLAKOVA, T.P.; FOKICHEVA, R.A.

Traumatic dislocation of the crystalline lens. Sbor. nauch.
trud. SOGMI no.14:130-134 '63. (MIRA 18:9)

1. Iz kafedry glaznykh bolezney Severo-Osetinskogo meditsinskogo
instituta (zav. kafedroy ~ prof. M.N. Bugulov).

VOROB'YEV, A.M.; FOKICHEVA, V.I.

Analytical determination of americium, plutonium, and uranium
by means of the AMP anion exchanger. Radiokhimiya 7 no.6:
728-729 '65. (MIRA 19:1)

FOKIN, A.A.

Pneumectomy in multiple metastases of osteogenic sarcoma from the shoulder to the lung. Vop.onk. 7 no.12:68-70 '61.

(MIRA 15:1)

1. Iz otdeleniya grudnoy khirurgii (zav. - dots G.L. Ratner)
kafedry fakul'tetskoy khirurgii (zav. - prof. I.D. Korabel'nikov)
Chelyabinskogo meditsinskogo instituta (dir. - dots. P.M. Tarasov).
(LUNGS--TUMORS) (SHOULDER--TUMORS) (LUNGS--SURGERY)

FOMINA, L.G., dotsent; FOKIN, A.A.

Compound treatment of coronary atherosclerosis during
dispensary observation. Sov. med. 26 no.4:20-22 Ap '63.
(MIRA 17:2)

1. Iz gospi'tal'noy terapevticheskoy kliniki (zav. kafedroy -
dotsent D.A. Glubokov) i fakul'tetskoy khirurgicheskoy
kliniki (zav. kafedroy - prof. I.D. Korabel'nikov)
Chelyabinskogo meditsinskogo instituta.

RATNER, G.L.; FOKIN, A.A.; SHAFRAN, G.L.

Successful surgical therapy of a patient with aortic coarctation
and patent ductus arteriosus. Grud. Khir. 3 no.2:98-99 '61.

(MIRA 14:4)

(DUCTUS ARTERIOSUS)

(AORTA--DISEASES)

FOKIN, A.A.

Pneumatic-tube transportation of discarded metal dust.
Khim.prom. no.9:612 Ag '62. (MIRA 15:9)
(Ash (Technology))
(Pneumatic-tube transportation)

FOKIN, A. [D.]

Stars, Variable

V Eotidis. Astron. tsir. No. 128, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

POKIN, A. [5]

Compiling normal positions. Astron.tsir. no.166:7-9 Ja '56.

(MIRA 9:7)

1.Odesskiy tekhnologicheskii institut pishchevoy i kholodil'noy
promyshlennosti, Kafedra teoreticheskoy mekhaniki.
(Orbits)

FOKIN, A.A. (Chelyabinsk, ul. III Internatsionala, 128, kv.15); SNISARENKO, N.N.

Removal of an embolus from the bifurcation of the aorta. Vest. khir. 92
no.3:139-141 Mr '64. (MIRA 17:12)

1. Iz fak-1'tetskoy khirurgicheskoy kliniki (zav. - prof. I.D.Korabel'-
nikov) Chelyabinskogo meditsinskogo instituta.

KOMAROV, N.G., nauchnyy sotrudnik; FOKIN, A.D., nauchnyy sotrudnik;
BASHMAKOV, A.I., nauchnyy sotrudnik; RUDAKOVA, A.G., nauchnyy
sotrudnik; MOSKALETS, Ye.S., nauchnyy sotrudnik; NEDEL'SKIY,
V.I., red.; PORFIR'YEV, B.A., red.; SKLYAROVA, Ye.I., tekhn.red.

[City of Kirov; reference book] Gorod Kirov; spravochnik. Kirov,
Kirovskoe knizhnoe izd-vo, 1957. 150 p. (MIRA 13:8)

1. Kirovskiy oblastnoy krayevedcheskiy muzey (for Komarov, Fokin,
Bashmakov, Rudakova, Moskalets). 2. Direktor Kirovskogo oblastnogo
krayevedcheskogo muzeya (for Nedel'skiy).
(Kirov)

FOXIN, A.D.

A finding of a cave lion. Priroda 46 no.6:109-110 Je '57.

(MLRA 10:7)

1. Kirovskiy oblastnoy krayevedcheskiy musey.

(Sanchursk District--Lions, Fossil)

Fokina, A. F.

USSR/Physics of the Earth - Geophysical Prospecting, 0-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36468

Author: Veshev, A. V., Fokina, A. F., Ivanov, V. K., Semenov, A. S.

Institution: None

Title: Experimental Work on Dipole Profile Tracing

Original

Periodical: Geofizicheskiye metody razvedki, Moscow, Gosgeoltekhizdat, 1955, 3-18

Abstract: Experimental work was performed in a water tank measuring 2 x 2 x 1.5 m. The observations were made on the following models: (1) conducting sphere (aluminum sphere with a radius of 3 cm); (2) conducting plate (duraluminum plate measuring 20 x 20 x 0.4 cm); (3) 2 conducting plates of the same material and size; (4) 2 non-conducting plates (glass plates of the same size); (5) 2 plates, one conducting the other not; (6) step-like contact of 2 medium (dihedral right angle made of plywood); (7) conducting plate in the presence of a step-like contact (vein of ore near a fault).

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USSR/Physics of the Earth - Geophysical Prospecting, 0-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36468

Abstract: The plates and the contact were always placed vertically. The depths to the upper edges of the plates vary from 2 to 4 cm. The distances between the plates (in the cases when 2 plates were used) or between the plate and the contact, varied from zero (plates stuck together) to 24 cm. The measurements were performed with a potentiometer using a pulsator and a semiautomatic recorder. An axial dipole installation was used. The exciting and measuring dipoles were equal to each other (one or 2 cm). The distance between the centers of the dipoles varied in different experiments from 5 to 30 cm. As a result of the experiments performed, the following conclusions were drawn: in dipole profile tracing it is possible to obtain results that are fully analogous to the results of combined profile tracing of similar objects. What makes the curves obtained by dipole profile tracing substantially different is the presence of additional extrema and the high extent to which the lines are cut up in the anomalous zones (over conducting and nonconducting bodies of the above form). The degree of the anomalies is greater in dipole curves than in curves obtained by combined

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USSR/Physics of the Earth - Geophysical Prospecting, 0-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36468

Abstract: profile tracing of the same object. The results obtained make it possible to recommend extensive testing of the dipole profile tracing under field conditions. One must bear in mind in this case that in addition to ore objects, there will be disclosed also sharp anomalies and irregularities of the containing rocks, which can also be used for detailed mapping. What makes the method of dipole profile tracing difficult to employ is the need for good grounding devices, particularly in the supply circuit, for otherwise the difference of potentials that is to be measured will be too small. Dipole profile tracing offers promising prospects because of the possibility of employing alternating current in this case.

Card 3/3

VESHEV, A.V.; ~~FOKIN, A.F.~~; OCHKUR, M.A.

Use of combined electric profiling techniques in large-scale geological mappings. Vop.rud.geofiz. no.1:38-47 '57. (MIRA 10:10)
(Prospecting--Geophysical methods) (Geology--Maps)

PHASE I BOOK EXPLOITATION 1171

Karandeyev, Konstantin Borisovich, and Mizyuk, Leonid Yakovlevich

Elektronnaya izmeritel'naya apparatura dlya geofizicheskoy razvedki metodami postoyannogo toka (Electronic Measuring Equipment for Geophysical Prospecting Using Direct Current Methods) Moscow, Gosgeoltekhizdat, 1958. 287 p. 5,000 copies printed.

Ed.: Godovikova, L.A.; Tech. Ed.: Krynochkina, K.V.

PURPOSE: The book may be useful to engineers and geologists engaged in prospecting for coal, oil, iron ore and other deposits.

COVERAGE: According to the authors, the book is an attempt to generalize and systematize the information on measuring equipment used in geophysical prospecting by direct-current methods. The equipment described in the book was developed by IMA (Institute of Mechanical Engineering and Automation of the USSR Academy of Sciences). In 1954 the Institute developed two types of portable automatic instruments with photographic and pen recorders. In 1955, upon the suggestion of A.S. Semenov, A.V. Veshev, and A.F. Fokin, the Institute also developed direct-reading instruments.

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Electronic Measuring Equipment (Cont.)

1171

At the same time a working model of a two-channel high-sensitivity compensator for prospecting by telluric currents was tested and is being used for further development of similar measuring instruments. In 1956 the Institute developed a portable miniature single-channel oscillograph for prospecting by the dipole sounding method. Pioneers in the development of instruments for prospecting by telluric currents and dipole sounding methods were A.M. Alekseyev, A.M. Zagarmistr, and M.N. Berdichevskiy, members of NIIGR (Scientific Research Institute of Geophysical Prospecting Methods). The following members of IMA participated in the development of measuring instruments for geophysical prospecting: G.A. Shtamberger, V.G. Zubov, V.N. Goncharskiy, I.G. Mityukhin, L.D. Gik, I.G. Kuznetsov, E.V. Sheremet'yev, S.K. Kuzovkin, L.V. Traube, A.I. Antonov, B.M. Zaydel', and A.F. Novitskiy. The authors thank N.N. Anikeyeva, N.M. Kogan, O.I. Podvolotskaya, and E.V. Sheremet'yev for their help in preparing the manuscript and A.M. Alekseyev for reviewing the text. There are 89 references, of which 79 are Soviet (including 1 translation), 5 English, 3 German, and 2 French.

Card 2/4

SOV/169-59-4-4555

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 5, p 41 (USSR)

AUTHORS: Veshev, A.V., Fokin, A.F., Petrov, G.A.

TITLE: [✓]A New Device for Electric Prospecting [✓]by Direct Current

PERIODICAL: Tr. Vses. n.-i. in-ta metodiki i tekhn. razvedki, 1958, Nr 1, pp 145 - 160

ABSTRACT: ^{γδ}An electronic-needle compensator ESK-1 ^{γδ}and a computing compensator KSR for electric prospecting by direct current are described, which are developed by the Institute for Science of Machines and Automation of the AS USSR and produced by the plant "Geologorazvedka". The devices function on the principle of auto-compensation realized by means of an amplifier of direct current with transformation. The principal circuits of ESK-1 and KSR are presented and the main characteristics, the description of the device, and the methods of handling the latter are given. A note on the development of a third device is added, which is an electronic automatic compensator designed for the separate registration on a film of the quantities ΔU and I. Field tests of the ESK-1, ✓

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SOV/169-59-5-4555

A New Device for Electric Prospecting by Direct Current

KSR, and EAK yielded positive results. The accuracy of measurements with electronic devices is somewhat higher than that of a potentiometer, and the performance increases even in relatively simple conditions by 1.4 - 1.7 times. In regions with industrial disturbances, the electronic devices have no advantages in comparison to the potentiometer. The introduction of the devices into the practice is recommended. ✓

A.A. Smirnov

Card 2/2

SOV/169-59-7-6722

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 7, p 30 (USSR)

AUTHORS: Semenov, A.S., Fokin, A.F., Veshev, A.V., Novozhilova, M.Ye.

TITLE: The Field of a Point Source of Current on a Plane Day Surface
in the Case of an Anisotropic Medium

PERIODICAL: Tr. Vses. n.-i. in-ta metodiki i tekhn. razvedki, 1958, Nr 1,
pp 210 - 135

ABSTRACT: The results of computing the field of a point source of current placed in a homogeneous anisotropic medium are reported, taking into account the anisotropy coefficient equal to 2. The medium is considered to be homogeneous for simplifying the computations. The formulae for computing the potential and the potential gradient and also for determining the coordinates of the extremal values of the curves of potential and its gradient are cited. The computations are performed for the following cases: an isotropic medium, a medium having horizontal cleavage, that with vertical cleavage, and a medium having cleavage with dip angles of the layers of 30 and 60°. The first part concerns: the

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SOV/169-59-7-6722

The Field of a Point Source of Current on a Plane Day Surface in the Case of an Anisotropic Medium

analysis of the varying form of the curves of potential and its gradient, depending on the dip angle, the anisotropy coefficient, and on the depth of submergence of the current source for profiles oriented in the direction of the strike and dip of the layers. The second part concerns the case of an arbitrary orientation of the investigated profiles relatively to the strike of the cleavage. For the latter case, the formulae for computing the dependence of the potential and its gradient on the medium parameters and on the angle between the direction of the investigated profile and the strike of the layers are quoted. The author assumes that the study of the field of the point-shaped current source in anisotropic media permits the singling out of the field distortions caused by the anisotropy of the rocks from the distortions caused by other factors, and that this fact guarantees a more reliable interpretation of electroprospecting carried out by the method of the charged body.

V.P. Dobrobol'skiy

Card 2/2

SEMMENOV, A.S.; VESHNEV, A.V.; FOKIN, A.F.

Field of a point source in an anisotropic semispace. Uch. zap. IGU
no. 249:90-113 '58. (MIRA 11:5)
(Prospecting--Geophysical methods) (Electric fields)

PHASE I BOOK EXPLOITATION

SOV/4059

Veshev, A. V., L. Ya. Mizyuk, G. A. Petrov, A. F. Fokin, and A. N. Chir'yev

Elektronnaya elektrorazvedochnaya apparatura ESK-1, KSR-1 i KSRM-1 (ESK-1, KSR-1, and KSRM-1 Electronic Equipment for Electrical Prospecting) Moscow, Gosgeoltekhizdat, 1959. 103 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agencies: Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki; USSR Ministerstvo geologii i okhrany neдр.

Ed. of Publishing House: V. I. Korchagin; Tech Ed.: V. V. Bykova.

PURPOSE: This textbook is intended for geophysicists, field geologists, and persons engaged in geological exploration.

COVERAGE: The book describes new electronic equipment manufactured for electrical prospecting by the use of direct current. The book also describes principles of operation, construction, and efficiency tests performed under both field and laboratory conditions. The book also gives directions for using the instruments, and lists possible causes of trouble, along with methods of

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ESK-1, KSR-1, and KSRM-1 Electronic Equipment (Cont.)

SOV/4022

eliminating them. The basic diagrams and first models of the equipment were developed by the Institute of Science of Machines and Automation, Academy of Sciences, Ukr SSR, in cooperation with the electrical prospecting laboratory of the VIRG (VITR). Field tests of the equipment were carried out jointly by the above-mentioned laboratory and the IMA AN Ukr SSR. Production models of the apparatus were developed in the OKB of the Ministry of Geology and Conservation of Mineral Resources, USSR. The following persons participated in the development of the electrical prospecting equipment: A.V. Veshev, V.G. Zubov, K.B. Karandeyev, L.Ya. Mizyuk, G.A. Petrov, E.P. Sogolovskiy, A.A. Flaksman, A.F. Fokin, G.A. Shtamberger, A.N. Chir'yev, and L.M. Jaffe. In writing this textbook, the following persons participated on behalf of the OKB MGION: A.N. Chir'yev and G.A. Petrov; on behalf of the IMA AN Ukr SSR: L.Ya. Mizyuk, V.G. Zubov; on behalf of VITR: A.V. Veshev, L.V. Larionov, and A.F. Fokin. General editing was done by A.V. Veshev. There are 15 references: 12 Soviet, 1 Swedish, 1 English, and 1 French.

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S/169/62/000/006/019/093
D228/D304

AUTHORS: Nitsetskiy, L. B. and Fokin, A. E.
TITLE: Portable outfit for modelling two-dimensional geophysical problems
PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 21, abstract 6A146 (Uch. zap. Rizhsk. politekhn. in-t, 5, 1961, 15-23)

TEXT: It is proposed that special plotters of electrically conducting paper, divided by a dielectric, should be used for modelling two-dimensional geophysical problems. Usually the plotters are circular or semicircular. The upper and lower layers of the electrically conducting paper are stuck along the plotter's edges with special glue, guaranteeing an electric contact between them. The plotter's lower part is an orthomorphic reflection; this allows the modelling of an endless medium to be realized. The modelling of irregularities is accomplished by means of electrically conducting paper of requisite resistance or by means of electrically con-

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ducting paint. The fields are set and examined by means of special spring electrodes (contacts). These are connected to a special switching system, coupled to a high-resistance recording device or oscillograph like for example the ЭН0-1 (ENO-1). A net model, in which one side of the grid corresponds to the field of the dipole oriented along one of the coordinate axes, is also proposed in addition to the continuous model. The net is intended for the solution of magnetic- and electric-prospecting problems and is made of resistances of the type БЛП (BLP) and МЛТ (MLT). [Abstracter's note: Complete translation.] ✓

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S/081/62/000/002/065/107
B156/B101

AUTHOR: Fokin, A. F.

TITLE: Apparatus for making automatic measurements when experimenting with models in electrolytic baths

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 369, abstract 2K154 (Byul. nauchno-tekhn. inform. M-vo geol. i okhrany nedr SSSR, no. 4(32), 1961, 40-43)

TEXT: An apparatus is described with which, as well as recording the quantities being measured on printing paper, the processes of variation in those quantities can be observed by eye either over an entire profile or a number of profiles simultaneously. The apparatus consists of the following parts: a plexiglass table on which the electrodes of the step-by-step selector are mounted, a "pulse-pair", an ЭН0-1 (ENO-1) oscillograph, a photographic recording oscillograph, a wide-band amplifier, current supply sources, apparatus for suspending models, a raising and lowering mechanism, and a regulation and control panel. [Abstracter's note: Complete translation.] ✓

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D228/D301

AUTHOR: Fokin, A. F.

TITLE: The field of a buried point source in the presence of a contact

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 25, abstract 3A212 (V sb. Vopr. rudn. geofiz., no. 2, M., Gosgeoltekhizdat, 1961, 56-60)

TEXT: The results of calculations of the field of a point source in the case of two homogeneous isotropic media is given. The calculations were made for the ratios: $\rho_2/\rho_1 = \infty, 0, 0.1, 0.5$. The results are presented as curves of the potential and the vertical gradient, constructed in relation to the depth of the observation point. In the presence of a contact it is established that, according to the measure of separation from the current source of the hole where the field is being studied, the potential's values decrease regularly and rapidly if $k_{1,2} < 0$; when $k_{1,2} > 0$, near the

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The field of a ...

surface and at depth, the expression $z = -0.7 - 1.0 z_0$ (where z_0 is the distance from the current's point source to the day surface in the first medium) hardly changes, or else varies much less than in the homogeneous medium. Moreover, the potential's values at the points of the first medium are greater for $k_{1,2} < 0$, and smaller for $k_{1,2} > 0$ than the potential's corresponding values in the homogeneous isotropic medium. On the increase of the ratio ρ_2/ρ_1 this difference is more acutely displayed. For $x > 0$ the potential's values at the corresponding points exceed those in the homogeneous medium by almost twofold. It is noted that the presence of the second medium has extremely little influence on the gradient-potential curves, and that they hardly differ from the gradients' values in the homogeneous isotropic semispace both in their form and their absolute values. The potential's isolines and the lines of the special potential-gradient points from the current's point source, placed in a homogeneous conducting semispace, are adduced, and their character

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and form are considered in detail. It is pointed out that the field's analyzed peculiarities should be used as criteria for distinguishing the influences of contact-type structures of rocks with a differing resistance. /-Abstracter's note: Complete translation._/

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RYSS, Yu.S.; FOKIN, A.F.; SHATROV, B.B.

Possibility of electric prospecting with direct and low-frequency current. Razved. i okh. nedr 27 no.1:27-32 Ja '61. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki Gosudarstvennogo geologicheskogo komiteta SSSR.

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1003/1203

AUTHORS: Savitskiy, Ye. M., Tykina, M. A., Zhdanova, L. L., Zubkova, L. A., Starkov, V. N.,
Fokin, A. G., Petrova, L. S., and Arkusha, T. I.

TITLE: The properties of rhenium, rhenium-tungsten and rhenium-molybdenum alloys

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam.
v. 9. 1962. Materialy Nauchnoy sessii po zharoprochnym splavam (1961 g.), 194-203

TEXT: Modern technology demands the most refractory metals such as W, Re, Ta and Mo. In the present work the microstructure and the mechanical properties of Re-W and Re-Mo were investigated at room and at 2600°-3400°C. Methods of casting and of plastic deformation of W-Re, Mo-Re and W-Mo-Re alloys were developed. It was shown that when tungsten and molybdenum are alloyed with rhenium there is an increase in plasticity in machinability in weldability and in strength, and the temperature of recrystallization increases by 400-500°C. There are 4 figures and 1 table.

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